



<110> Meulewater, Frank
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Van Eldik, Gerben
Jacobs, John

<120> Methods and means for delivering inhibitory RNA to
plants and applications thereof

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AB
<170> PatentIn Ver. 2.0

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: cDNA copy of
the nucleotide sequence of the genome of TNV-A

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<211> 6395
<212> DNA
<213> Arti

<220>

<222> Description of Artificial Sequence: cDNA copy of the nucleotide sequence of the genome of TMV-U1

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<211> 1245

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: cDNA copy of
the nucleotide sequence of the genome of STNV-2

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1245

<210> 4

<211> 1058

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA copy of the nucleotide sequence of the genome of STMV

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<211> 6355

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: cDNA copy of the nucleotide sequence of the genome of TMV-U2

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taagggagta ctaaacagtg tttccaaacc actaaaaggg aaaattgtaa ctttcactca 3120
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ccaaggagaa accttgaag atgtgtcgct ggtcagattt acggcaactc cactgactct 3240
gatttccaag tctccccgc atgttctagt cgctctgact agacacacaa agagcttcaa 3300

A
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aagacttaaa attcagggtg gctgatacca aaatcagcag tggtgttcg tccacttaaa 6240
tataacgatt gtcatatctg gatccaaacag ttaaaccatg tgatggtgta tactgtggta 6300
tggcgtaaaa catcgagag gttcgaatcc tccccctaacc gccggtagcg gcccc 6355

<210> 6

<211> 2346

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequenc : nucleotide sequence of the tomato phytoene desaturase (pds) encoding cDNA

<400> 6

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acaagttcc atttaactct tcaacttcaa cccaaacaaa tttatccct taattgtgca 120
gaaccactcc ctatatcttc taggtgcttt cattcggtcc gaggtaaagaa aagattttg 180
tttcttgaa tgcttatgc cactcggtta acttctgagg tttgtggatc ttttaggcga 240
ctttttttt tttgtatgt aaaattgtt tcataaatgc ttctcaacat aaatcttgac 300
aaagagaagg aattttacca agtatttagg ttcagaaatg gataatttc ttactgtgaa 360
atatccttat ggcagggttt actgttattt ttcagtaaaa tgcctcaaat tggacttgtt 420
tctgctgtta acttgagagt ccaaggtagt tcagcttatac tttggagctc gaggtcgct 480
tctttggaa ctgaaagtgc agatgggtgc ttgcaaagga attcgttatg tttgcttgt 540
agcgaatcaa tgggtcataa gttaaagatt cgtactcccc atgcacgc cagaagattg 600
gttaaggact tggggccttt aaaggcgta tgcattgatt atccaaagacc agagctggac 660
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tcccccaatag aggggttta tttagccgt gactacacga aacagaaata ctggctca 2040
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aagaagatgt cgaggtgaag caagtaggag aaatgtttagg aaagctccta tacaaaagga 2280
tggcatgttgc aagatttagca tctttttat cccaaatgttgc aatataaaagc atattttatg 2340
gaattc 2346

<210> 7

<211> 7096

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: nucleotide sequence of the tobacco nitrate reductase (nia-2) encoding cDNA

<400> 7

tacatacacaag ggccgcgaata aactttttt aaagtaaatg tataatgaact tgcaatgaaa 60
gaggacctta acttgggttgc ctttggct ttctgcaa at ttcaccttaa cagcccattt 120
gagattgatt tagttatgtt taacaattag ttaaatgctt gtgtatattt aagaaaatat 180
ttggacgtgc tcgctgaaaaa cattatactc ctatataata gaaataactt ctgaaaagtt 240
ggtcttgttc aaaaacgtat aagagagttg gtcttctcat aaatagtcac tagcttctg 300
atttttttc actttctata tcacgtaat aggtactcaa atttgatatt tacaccaa 360
aaatgaaaat aggatatgtt ttttcatac gtatattt ctatcgact taatgatata 420
tacatataca tataacctta ctttttgatt actaaaaatt taattatatt taatttgggt 480
aaatatcaga tgccacaaaaa catttaccta gccactgtt ttgactacta aaaatatta 540
tatgtttagc ttgggttaat atcagatgtc actaaacatt ttaccttagcc attcctccga 600
aaagaaaattt agaaggaaat tagagttgtt ggagccataa taatgtttaa tgtgaccata 660
actcggtgaa aaccacggca agaataagaa acagctgtt aggctaacca acagctgcat 720
atctttaagc catttgcatac taccacca a tcgcacatcc ctctgatccc gaccctacgg 780
gcgtaaaaag tgtaaatcgt tagaattgtt ttatattt tatgtatgtca ctatttta 840
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tatggaggca ctgagagagt ccgaaacgtt tctatataag gccaccccac gcattcacaa 960
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A
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aaaccacgaa tatcattatg cagacgtata ggttaattat ctacttttg aaaaaaaaaatc 7020
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acttctatattt agttttt 7096

<210> 8
<211> 1839
<212> DNA
<213> Artificial Sequence

A 1
> <220>

<223> Description of Artificial Sequence: nucleotide sequence of the tobacco nitrite reductase (nir-1) encoding cDNA

<400> 8

tttctattaa atttctggca ctttcattgc caaatccagc tagatttcc aagaatgctg 60
tcaagctcca cgcaactccg ccgtctgtgg cagcgccggc agctggtgct ccagagggtt 120
ctgctgagag gctagaaccc agagttgagg aaaaagatgg ttattggata ctcaggagc 180
agtttagaaa aggcataaat cctcaagaaa aggtcaagat tgagaagcaa cctatgaagt 240
tgttcatgga aaatggtatt gaagagctt ctaagatacc cattgaagag atagatcagt 300
ccaagcttac taaggatgtat attgatgtt ggcttaagtg gcttggcctc ttccatagga 360
gaaagaacca atatggcggtt ttcatgatga gattgaagct tccaaatggc gtaacaacgc 420
gtgcacagac tcgatacttg gcgagtgta taaggaaata cggaaaagaa ggatgtgctg 480
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tactaaaggg actagcagaa gttgggttgc ccagtttgcg gagtggcatg gacaatgtca 600
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cttacactaa tttgctctcc caatttatca ctggcaattc acgaggcaat cccgcagttt 720
ctaacttgcc aaggaagtgg aatccgtcg tagtaggctc tcatgatctt tatgaacatc 780
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tagggagtga ttcacatttg ggagaagttt ataagaaggc tgttcctgt gatgatttgg 1680
taccacttgt tggactta ctagtaaca actttggtgc agttccacga gaaagagaag 1740
aaacagaaga ctaataaaat tttagaatgt tggtgatttt gctgtgttca taacatgtaa 1800
tgtatgataa atcaatgcaaa acatttctac ctacgtgag 1839

<210> 9

<211> 1294

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA of the beta-1,3-glucanase of Nicotiana plumbagenifolia

<400> 9

A1

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cacaagtgt acaactgtac aagtcaaaaa acataagaag aatgaggctt tatgatccaa 180
atcaaggcagc tttacaggct ttaagaggct ccaacattga agttatgtta ggagttccca 240
attcagatct ccaaaacatt gctgctaacc cctcaaattgc aaataattgg gtccagagga 300
atgtcagaaa ttctggcca gccgttaat ttaggtacat tgccgttggaa aatgaagtca 360
gcccgttaac aggcacatct tcacttaccc gatatcttct tccggccatg aggaacatc 420
ggaatgcgtat ttcttcagca ggttgcaaa acaatatcaa agtctcaagt tctgttagaca 480
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caacttacta caagaactta attcagcatg ttaaaaagggg tagtccaaga aggcctaata 900
aagtcatgt gaccattttt tttgctatgt ttgtatgagaa taacaaaaac cctgaattgg 960
agaaacatctt tggactcttt tcccccaaca agcagccaa atatccactc agctttgggt 1020
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gtgagatgtg ataagagagt tctctttaaa tatcttaca tggatggaaa acttagtacc 1140
aataactaga ttgtttcttt cttagtgcataa ttcttgcataa atgagagact agtacttgct 1200
ctctgtgtcc ttgtggagag taactagaga caaattaagc aaataacata aataattgag 1260
tgttgattct gcaatgataa atagaaaaaa aaaa 1294

<210> 10
<211> 720
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: green
fluorescent protein encoding region

<400> 10
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ggcgacgtaa acggccacaa gttcagctg tccggcgagg gcgaggcgta tgccacccat 120
ggcaagctga ccctgaagtt catctgcacc accggcaagc tgccctgtcc ctggccacc 180
ctcgtgacca ccctgaccta cggcggtcag tgcttcagcc gctaccccgaa ccacatgaag 240
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ttcaaggacg acggcaacta caagacccgc gccgagggtga agttcgaggg cgacaccctg 360
gtgaaccgcgca tcgagctgaa gggcatcgac ttcaaggagg acggcaacat cctggggcac 420
aagctggagt acaactacaa cagccacaac gtcttatatca tggccgacaa gcagaagaac 480
ggcatcaagg tgaacttcaa gatccgcac aacatcgagg acggcagcgt gcagctcgcc 540
gaccactacc agcagaacac ccccatcgcc gacggccccc tgctgctgccc cgacaaccac 600
tacctgagca cccagtcgcg cctgagcaaa gaccccaacg agaagcgcga tcacatggtc 660
ctgctggagt tcgtgaccgcg cggccggatc actctcgccgca tggacgagct gtacaagtaa 720

<210> 11
<211> 1809

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial

Sequence:beta-glucuronidase encoding region

<400> 11

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ttcagtctgg atcgcgaaaa ctgtggatt gatcagcgtt ggtggaaag cgcgttacaa 120
gaaagccggg caattgctgt gccaggcagt tttacgatc agttcgccga tgcagatatt 180
cgtaattatg cggcaacgt ctggtatcag cgcaagtct ttataccaa aggttggca 240
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cagactatcc cgccggaaat ggtgattacc gacgaaaacg gcaagaaaaa gcagtcttac 480
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cgcggtggcg gtaacaagaa agggatcttcaactcgacgacc gcaaaccgaa gtcggcggt 1740
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aaacaatga 1809

<210> 12

<211> 411

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA copy of
part of the region of a TMV-U2 variant comprising

the origin of assembly

<400> 12

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gctgtgaaac tcgaaagggtt ccggaaaaca aaaaagagag tggtaggtaa taatgttaat 120
aataagaaaa taaataatag tggtaagaag gggttggaaag ttgagggaaat tgaggataat 180
gtaagtgatg acgagtctat cgcgtcatcg agtacgttt aatcaatatg ccttatacaa 240
tcaactctcc gagccaaattt gtttacttaa gttccgctta tgcagatcct gtgcagctga 300
tcaatctgtg tacaaatgca ttaggtaacc agtttcaaac gcaacaagct aggacaacag 360
tccaacagca atttgcggat gcctggaaac ctgtgcctag tatgacagtg a 411

A1
<210> 13

<211> 198

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA copy of
STMV leader region

<400> 13

agtaaaaactt accaatcaaa agacctaacc aacaggactg tcgtggcat ttatgctgtt 60
gggggacata gggggaaaac atattgcctt cttctacaag aggccttcag tcgccataat 120
tacttggcgc ccaattttgg gtttcagttt ctgtttccag ctatggggag aggttaagggtt 180
aaacccaaacc gttaatcg 198

<210> 14

<211> 455

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA copy of
STMV trailer region

<400> 14

gacaagtgcgc cttggttatt tcgtgttgg ttaactgaac ctcgacataa gcctttgg 60
tcgaagggtta aacgatccgc tcctcgctt agcttggggc ggcgtatctc ttatgtcaac 120
agagacactt tggcttatgg ttgtataaca atagatagac tcccgttgc aagatttaggg 180
ttaacagatc ttggcgttag tctggtttagc gcgttaaccgg cttgattta tggaaatagat 240
ccattgtcca atggcttgc caatggaaacg ccgacgtggc tgtataatac gtcgttgaca 300
agtacgaaat cttgttagt ttttccctc cacttaaaatc gaagggtttt gttttggct 360
tcccgaacgc atacgttagt gtgactaccg ttgttcgaaa caagtaaaac aggaaggggg 420
ttcgaatccc tcccttaaccg cgggttaagcg gccca 455

<210> 15

<211> 1971

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA copy of part of the genome of a TMV-U1 variant, comprising MP and CP genes

<400> 15

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aaaggagcct tttgtgtga cgatagtctg ctgtacttcc caaagggttg tgagttccg 120
gatgtgcaac actccgcgaa tcttatgtgg aatttgaag caaaactgtt taaaaaacag 180
tatggatact tttgcggaag gtatgtata catcacgaca gaggatgcat tgtgttattac 240
gatcccctaa agttgatctc gaaacttggt gctaaacaca tcaaggattg ggaacactt 300
gaggagttca gaaggtctct ttgtgtatgtt gctgttccgt tgaacaattt tgctgttattac 360
acacagttgg acgacgctgt atgggaggtt cataagaccg cccctccagg ttctgttattt 420
tataaaagtc tggtaagta ttgtctgtat aaagttcttt tttagaagttt gtttataagat 480
ggctctagtt gttaaaggaa aagtgaatat caatgagttt atcgacactga caaaaatgga 540
gaagatctta ccgtcgatgt ttacccctgt aaagagtgtc atgtttcca aagttgataa 600
aataatgtt catgagaatg agtcattgtc agaggtaaac cttctcaaag gatgttacgt 660
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tgacaattgc agaggaggtg tgagcgtgtg tctgggtggac aaaaggatgg aaagagccga 780
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caatattaga aatgtaaaga tgcagcggg tttctgtccg ctttctctgg agtttgcgt 960
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aagggttggc tcttggatcg cgcgggtcaa atgtatatgg ttcatataca tccgcaggca 1920
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